

Report On
THE OPERATIONS, MAINTENANCE & SUPPLY CHAIN
MANAGEMENT OF IBC POWER LTD

By

MD. GOLAM KABIR
20164061

An internship report submitted to Brac Business School in partial fulfillment of the
requirements for the degree of
Master of Business Administration

Brac Business School
Brac University

Declaration

It is hereby declared that

1. The internship report submitted is my/our own original work while completing degree at BRAC University.
2. The report does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The report does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I/We have acknowledged all main sources of help.

Student's Full Name & Signature:

MD GOLAM KABIR
Student ID – 20164061

Supervisor's Full Name & Signature:

Suman Paul Chowdhury
Associate Professor of Accounting
BRAC Business School, BRAC University

Letter of Transmittal

September 29,2022,

Sumon Paul

Chowdhury

Associate professor
of accounting , Brac

Business School

BRAC University

Subject: Letter of Transmittal for Internship Report Submission

Dear Sir,

With great pleasure I would like to submit my internship report titled 'The Operations, Maintenance & Supply Chain Management of IBC Power Ltd'. I tried my best to fulfill all the requirements of internship and also followed your instructions while preparing this report.

I have attempted my best to finish the report with the essential data and recommended proposition in a significant compact and comprehensive manner as possible.

Sincerely yours,

Md Golam Kabir

Student ID: 20164061

Brac Business School,

BRAC University

Date: 29/09/2022

Non-Disclosure Agreement

This agreement is made and entered into by and between IBC Power Ltd and the undersigned student at BRAC University.

As you are currently employed at the organization you have access to the clients and confidential information. You agree that you will keep all this information strictly confidential and you will not share with anyone outside the organization.

Md Golam Kabir

Student ID: 20164061

Brac Business School,

BRAC University

Date: 29/09/2022

Acknowledgement

First of all, I would like to express my sincere gratitude to our course instructor **Sumon Paul Chowdhury**, BRAC University, for giving me a proper and clear direction to conduct the internship report on ‘The Operations, Maintenance & Supply Chain Management of IBC Power Ltd’. Secondly, while making this report, all of the data and inputs have been gathered from key employees of procurement and purchase department of IBC Power Ltd. Acknowledging my sincere gratitude towards Mr. Walioul Bari, Head of Purchase & Procurement and my mentor Mr. Md. Yar Hossain, Chief Engineer, for their valuable time, patience and information.

Table of Contents

The Operations & Supply Chain Management of.....	i
IBC Power Ltd.	i
Declaration.....	ii
Letter of Transmittal	iii
Non-Disclosure Agreement	iv
Acknowledgement	v
List of Acronyms	viii
Executive Summary	1
Chapter 1 Overview of Internship.....	2
1.1 Student Information	2
1.2 Internship Information	2
1.3 Internship Outcomes	3
Chapter 2 Organization Part: Overview, Operations and a Strategic Audit	4
2.1 Introduction.....	4
2.2 Overview of the Company	5
2.3 Management Practices	6
2.4 Financial Performance & Accounting Practices	7
2.7 Industry and Competitive Analysis.....	8
2.8 Summary and Conclusions	8
2.9 Recommendations.....	9
Chapter 3 Project Part: The Operations Management of IBC Power Ltd.....	9
3.1 Introduction and Significance	9

Prioritized Improvement Areas..... 12

Importance of Purchasing Over Time..... 12

3.2 Summary and Conclusions 13

3.3 Recommendations..... 13

3.3.1 Data Management System 13

3.3.2 Empowerment of Managers 18

References..... 18

List of Acronyms

BOQ	Bill of Quantity
BIWTA	Bangladesh Inland Water Transportation Agency
BWDB	Bangladesh Water Development Board
C&F	Cost and Freight
ERP	Enterprise Resource Planning
GTP	Guaranteed Technical Particulars
IT	Information Technology
KPI	Key Performance Indicator
LC	Letter of Credit
LCA	Life Cycle Analysis
PI	Proforma Invoice
ROI	Return on Investment
SCM	Supply Chain Management
SKU	Stock Keeping Unit
TT	Telegraphic Transfer

Executive Summary

In today's world, effective and efficient supply chain management is seen as a significant competitive advantage for a business. The enterprise that conducts robust supply chain planning activities, delivers increased efficiencies. Supply chain managers plan, schedule, and control that flow of goods to help the company stay competitive and control costs. They build the bridges between suppliers, companies, and consumers. IBC Power Ltd. is a major player and the largest private organization in the Dredging Industry of Bangladesh.

Throughout the report, the focus is to find potential improvement areas and apply my knowledge and tools for betterment of the procurement process and strategy for IBC Power Limited. Firstly, I tried to figure out the problems through survey, prioritizing the list and finally propose action plan against each.

Chapter 1

Overview of Internship

1.1 Student Information

I Md. Golam Kabir, bearing ID 20164061, is employed at IBC Power Limited for the last two and half years and counting under Operation and Maintenance Department in Dredging Division. Organizational attachment is an obligatory requirement for the completion of MBA program, BRAC Business School, BRAC University, and accordingly to complete this course. During this project, I got close supervision of my supervisor Engr. Md. Yar Hossain, Chief engineer, Dredging. My supervisor helped me to find and work on the topic: “The Operations maintenance & Supply Chain Management of IBC Power Ltd.”

1.2 Internship Information

1.2.1 Period, Company Name, Department/Division, Address

Internship Period - 6 weeks (240 hours)
Company Name - IBC Power Limited
Department - Dredging
Address - Iqbal Center (18th Floor), Kamal Ataturk Avenue, Dhaka – 1208

1.2.2 Internship Company Supervisor’s Information: Name and Position

Name -Engr. Md. Yar Hossain
Position -Chief Engineer (Dredging)

1.2.3 Job Scope – Job Description/Duties/Responsibilities

The report particularly demonstrates what is done with the aid of Maintenance Department, Operations department and procurement department, with key activities like call for forecasting, procurement, production, distribution and more. The intention is to locate how it allows gaining business objectives via easy operations and creating competitive blessings. Finally, the record shows some likely initiatives that might be beneficial to keep away from interruptions within the deliver chain and to put into effect a worldwide well-known Supply chain control.

1.3 Internship Outcomes

1.3.1 Student's contribution to the company

As a part of Operation and Maintenance department, my job responsibilities includes communicating with both international and local vendors, arrange meetings and negotiating with the quotations provided, forecasting future demands, preparing BOQ (Bill of Quantities), shipment follow up, claim if any problem is faced on receiving of items, preparing requesting letters to banks and government utilities, keeping good communication with other Departments (Finance & Purchase) to execute import related works. To add to it, my responsibilities also include preparation of bid document for both technical and financial proposal of a tender; those are floated by the government dredging activities.

1.3.2 Benefits to the student

The whole work process let me have deeper insights of operation , maintenance & supply chain management of manufacturing firms like IBC power limited, gaining new knowledge on future demands and getting accustomed to latest industry technology, ERP (Enterprise Resource Planning). To sum it up, a holistic hand on experience on maintenance, operations and supply chain management.

1.3.3 Problems/Difficulties (if any faced during the internship period)

Some mentionable critical problems are:

1. Lack of data.
2. Data is not organized.
3. No training and development.
4. Problems arise for selecting the product perfect HS code which is related with the customs duty.
5. The shortage of IT knowledge among the employees at the commercial department that reduce the smoothness of the work performance.
6. No central database of the suppliers. So the information about the employers is not available.

1.3.4 Recommendations

A few possible recommendations to the company on future internships are:

1. Make a proper list for all vendors and suppliers and product related to company's requirement.
2. Introduction of a holistic Enterprise Resource Planning software system
3. Training and development of the employees on ERP

Chapter 2

Organization Part: Overview, Operations and a Strategic Audit

2.1 Introduction

As a riverine company, Bangladesh has a huge riverine transportation. And river transportation is the cheapest mode of transportation. Again, in many places of Bangladesh there is no river bank protections. Every season many people lose their residence/ School etc. For all this activity Bangladesh needs a huge amount of dredging in the river. “**Bangladesh Inland Water Transportation Agency (BIWTA)**” works for maintaining the navigational routes around Bangladesh and “**Bangladesh Water Development Board (BWDB)**” works for protecting the rivers. Dredging and river bank protection activity is monitored by this two organization and performed by different govt and non-govt. organizations. “IBC Power Limited” is one of the contractor companies enlisted in BIWTA and BWDB to perform dredging activity in different rivers in Bangladesh.

2.2 Overview of the Company

IBC power Ltd is one of the leading Dredging contractor companies in Bangladesh. Continual research and development, state of the art production facility, quality products, competent services, and countrywide operations have made it warmly acceptable to the customers. IBC power ltd incorporated in 2015 as a private limited business enterprise. It is powered by almost 400 skilled manpower. The relentless efforts and dedication of these people are providing continual help to improve technology of dredging and innovate new solutions to protect the rivers and maintain the navigational channel of Bangladesh. To meet countrywide demand of dredging services, ibc power limited has 41 Cutter suction Dredgers and ancillary vessels in different location of country. Some Completed Project of IBC Power Ltd:

- Improvement of Navigational Route “ Mongla to Pakshi” for Roop Pur Power Plant.
- “Poshur River Dredging” for Rampal Thermal Power Plant
- Mongla Port Inner Bar Dredging
- Old Brammaputra River Dredging
- Bangali Karotoa fuljhor hurasagor river dredging.
- MAWA Ghat Maintenance Dredging
- Matarbari Kuheli River Dredging

This are the remarkable project that IBC POWER Ltd has completed with govt. as main contractor. There are many other small projects that is been completed as demand basis or as subcontract.

Management Practices

The management of IBC Power Ltd practices a rather vertical organizational structure. Under the guidance of the Chief Executive Officer Mr. Munazzeel Riasat, there are separate divisions. Each of the division is solely responsible for delivering of its respective equipment. There are different departments, like: Procurement Department, Maintenance department, Operations department, accounts and finance department, Audit Department, Tender and Billing Section, HR Department etc. Each department is led by a departmental head and under his or her guidance; there are two or three sub-divisions. Each sub-division is accountable for their well-defined job responsibilities and is dependent on other sub-divisions for cross-functional tasks.

Major strategic decisions are practiced in a top down approach. The values, requisites, objectives and alignment are flowed from the top management to the middle management and all the way down to each employee level. IBC Power ltd usually follows broad differentiation strategy in its service marketing. Its Dredging machines are highly technology based and tailored to specific client requirements. All the equipment is targeted towards government and non- government dredging needs across the country both in rivers and in the sea. and the prices for work is moderately higher than that of the local competitors with a promise of exceptional quality of work.

Financial Performance & Accounting Practices

From the financial statements of the company, it is clear that IBC Power Ltd has been experiencing growing revenue for quite a long time now. IBC power Ltd was able to earn revenue of more than BDT 137 crore in the fiscal year 2020-21. This was a growth of about 4.5% as opposed to the previous year (IBC Power Ltd., 2019-2020).

For almost all of the government projects, which is the major source of revenue for the company, IBC Power Ltd is offered a certain percentage of the total contract amount, depending on the contract agreement of the buyer and the seller, as an advance payment upon being awarded any tender. With this advance payment, raw materials, operational expenses are been started. Upon completion of a particular portion of the work, another agreed percentage is received and upon successful hand over of the project, after final survey, the rest of the amount is cleared. The factory, offices and sites' overhead, utility and miscellaneous operational expenses sum up to a huge amount of cost for the company. IBC Power Ltd is aiming to

downsize these operational costs as much as possible. Dredging work pricings are determined by considering the minimum possible profit margin on the fixed and variable expenses of each product. This margin is determined by industry and competitor analysis on tender basis.

2.3 Industry and Competitive Analysis

Incorporated in 2015, IBC Power Ltd. Become the pioneer in the Bangladeshi private dredging sectors. Before its inception, substation equipment had been entirely dependent on imports for Bangladesh. Initially IBC Power ltd started its operation with a subcontractor work for a Chinese company who was main contractor for Matarbari Coal Power Plant. Soon IBC Power ltd accumulated the manpower and the skill sets and began bidding tender by itself and getting work order direct from Govt. Now after 7 years of being the market, IBC Power ltd holds a significantly higher market share than any of its competitors. Considering the local market with its local players, Ibc Power Ltd holds the market share at 48% followed by its closest competitor SS Rahman Dredging (27%) and Banga Dredging Limited 12%. The rest of the 13% shares are distributed by the lesser known companies including Wahid construction , Quest Dredging and many more.

2.4 Summary and Conclusions

IBC Power Ltd's technical prowess, board of directors visions and research prioritize strategy has made them a market leader dredging industry. Although a market leader, IBC Power Ltd did not succeed enough because of a vertical organization structure and centralized decision-making culture. With change in technology, IBC Power ltd's practices and ways of operating the organization did not change much in the last 7 years. What sets IBC Power ltd apart from their counterpart is their product oriented and differentiation strategy: Robust European Dredging Machine in different size and different features , strong design and maintenance team, wide network , mobility etc.

Recommendations

Some mentionable recommendations:

1. Should do some improvement in store activity
2. Should study more details for a project before starting
3. Surveying employees.
4. Align training with management's operating goals
5. Keep innovating and keep measuring results

6. Research and development
7. Increase digital presence, i.e. online marketing
8. Introducing an ERP software like (SAP) in the organization.
9. Explore for Global Market.
10. Introduce cost leadership strategy

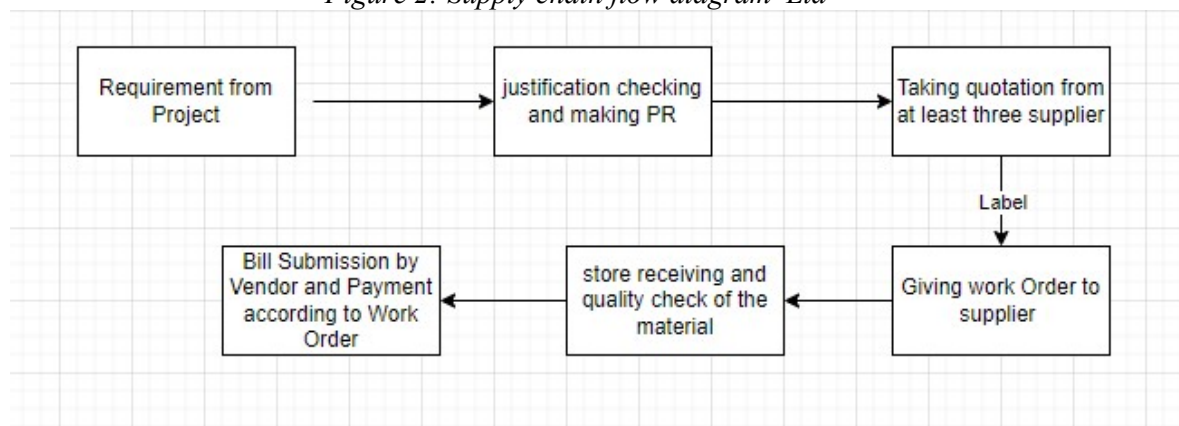
Chapter 3

Project Part: The Operations Management of IBC POWER Ltd.

3.1 Introduction and Significance

If one cannot win by buying, then one cannot win by selling. Therefore, in this competitive market, a company must come up with a winning Supply Chain process. The goal is to find out the problem(s) in the IBC Power Ltd supply chain, prioritize the list and come up with specific actions. During writing the whole report focus is given mostly on foreign procurement part, but recommendations are applicable to both foreign and local procurement teams.

Figure 2: Supply chain flow diagram Ltd



Prioritized Improvement Areas

Now, based on my study, we identified the following areas for improvement as first priorities:

- Modernization of store and keeping inventory system.
- Upgradation of Data Management System
- Introduction of basic modern tools for increasing procurement effectiveness.
- Design and implement effective Training module for the department employees
- Process mobilization
- Material Quality Issue

3.2 Summary and Conclusions

- In this report, due to time constraints, the prioritized action items are highlighted only. Improvement is always an ongoing factor.
- Due to company policy, only representative financial figures are published. The data are manipulated but relative to one another as they are in reality.
- Against one question some abrupt statistics were found. For time constraint, further action is avoided.

The recommended actions take time to showcase their results which is not possible to see within three months. Therefore, only conservative projections are made to forecast effect. The recommendations made are based on partly on survey result, consultation with experts and on first-hand experience. EEL must devote with strict commitment towards the actions to see result. But it will take approximately minimum two years to see the change. At first, efficiency will drop as is seen in case of others (mandatory part of change management), but will eventually pick up if implemented properly.

3.3 Recommendations

3.5.1 Data Management System

Right now, IBC Power Ltd is in need of ERP (Enterprise Resource Planning) software which should replace it is a manual operation especially in SCM. Because IBC Power Ltd has grown in terms of

- Volume (no. of employee) and
- Value (Revenue/Profit)

In absence of ERP, there incurring are functional losses in for example:

- Visibility of Inventory
 - Generating an analytical report
 - Approval Process
 - Budgetary overrun
 - Supplier assessment
 - Payment
- Customer Service ResponsivenessAs a result, work flow is being severely hit by
 - Multiple sources of data
 - Loss of relevant data
 - Manual and non-standard entry of data
 - Painful, time consuming and yet false or incomplete retrieval of data
 - Waste of time in collection of data
 - Soloed operations of departments
 - Frustrated and non-performing employees

So, to minimize the negatives, ERP can provide a permanent yet dynamic solution. But it's compulsory that EEL must have

- Strong and long term commitment from top management
- Significant investment specially (as a large organization)

And IBC Power Ltd should start from SCM. Here's why

- This is where record keeping, documentation and tracing back are of most importance
- The opportunity of pilferage is highest here
- Most number of inter-departmental processes are involved in operation and therefore digitizing is required most
- 45-50% of a manufacturer's working capital is tied up in Supply Chain in any moment. Apparently, we must bring efficiency here first. Freeing up capital makes business more responsive to change

3.5.2 Empowerment of Managers

Right now, the CEO or Managing Director gives approval on Work order/ supply order or LC by signing. On their busyness or absence, these regular business operations get stuck and thus slow the whole process down. Empowering others managers to take over these operations will ease up things. That's short-term solution

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